Practition r's Docket No.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application Assistant Commissioner for Patents Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of inventor(s):

Richard L. HUGANIR and Jee Hae KIM

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title):

SIGNAL TRANSDUCING SYNAPTIC MOLECULES AND USES THEREOF

CERTIFICATION UNDER 37 C.F.R. 1.10*

(Express Mail label number is mandatory.) (Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date April 19, 1999 in an envelope as "Express Mail Post Office to Addressee," mailing Label Number E1978002370US dressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Peter F. Corless

berson mailing paper)

Signature of person mailing paper

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

*WARNING: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing, 37 C.F.R. 1.10(b).

> "Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

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1. Type f Applicati n

This new application is for a(n)

(check one applicable item below)

Ž	Original (nonprovisional)
	Design
	☐ Plant
WARNING	3: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4), unless the International Application is being filed as a divisional, continuation of continuation-in-part application.
WARNING	: Do not use this transmittal for the filing of a provisional application.
7	one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION RANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.
	Divisional.
*	Continuation.
	Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. 112. Each prior application must also be:

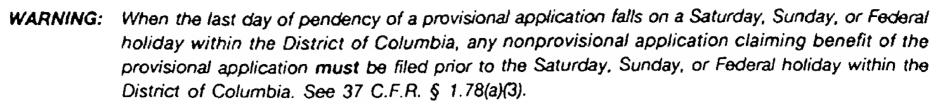
- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
 - (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

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The new application being transmitted claims the benefit of prior U.S. application(s).

Papers Enclosed

- A. Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153 (Design) Application
- 68 Pages of specification
- _ Pages of claims
- 23 Sheets of drawing

WARNING: DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 CFR 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).

NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page . . . " 37 C.F.R. 1.84(c)).

	(complete the following, if applicable)	
	The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b)	
	formal	
	informal	
Oth	er Papers Enclosed	
P	ages of declaration and power of attorney	
P	ages of abstract	
_ Other		
dditional papers enclosed		

₿.

ulu	Ona	papers enclosed		
	Amendment to claims			
		Cancel in this applications claims before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)		
		Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)		
	Pre	liminary Amendment		
	Info	ormation Disclosure Statement (37 C.F.R. 1.98)		

Form PTO-1449 (PTO/SB/08A and 08B)

Citations

		Dec	aration of Biological Deposit			
		per	Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.			
		Aut tive	orization of Attorney(s) to Accept and Follow Instructions from Representa-			
		Spe	cial Comments			
		Oth	r			
5. De	ecla	aratio	or oath (including power of attorney)			
NOTE	t t t t t t t t t t t t t t t t t t t	he prices application he sign by a state declara berson	executed declaration is not required in a continuation or divisional application provided that nonprovisional application contained a declaration as required, the application being filed is fewer than all the inventors named in the prior application, there is no new matter in the on being filed, and a copy of the executed declaration filed in the prior application (showing sture or an indication thereon that it was signed) is submitted. The copy must be accompanied ement requesting deletion of the names of person(s) who are not inventors of the application and lift the declaration in the prior application was filed under § 1.47, then a copy of that con must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning ander § 1.47 has subsequently joined in a prior application, then a copy of the subsequently if declaration must be filed. See 37 C.F.R. §§ 1.63(d)(1)–(3).			
NOTE	i á	A declaration filed to complete an application must be executed, identify the specification to which it is directed, identify each inventor by full name including family name and at least one given name, without abbreviation together with any other given name or initial, and the residence, post office address and country or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 C.F.R. § 1.63(a)(1)–(4).				
		End	osed			
		Exe	cuted by			
(check all applicable boxes)						
			inventor(s).			
			legal representative of inventor(s). 37 CFR 1.42 or 1.43.			
			joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.			
			☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.			
	X	Not	Enclosed.			
NOTE	1	the U.S may be	ne filing is a completion in the U.S. of an International Application or where the completion of application contains subject matter in addition to the International Application, the application treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE W APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.			
		X	Application is made by a person authorized under 37 C.F.R. 1.41(c) on behalf of all the above named inventor(s).			
(The	e dec	ration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently).			
			☐ Showing that the filing is authorized. (not required unless called into question. 37 CFR 1.41(d))			
			(Application Transmittal [4-1]—page 4 of 11)			

6. Inv nt	orship Statem nt
WARNING:	If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.
The inve	entorship for all the claims in this application are:
	The same.
	or
	Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
	is submitted.
	will be submitted.
7. Langu	age
An rec	application including a signed oath or declaration may be filed in a language other than English. English translation of the non-English language application and the processing fee of \$130.00 quired by 37 CFR 1.17(k) is required to be filed with the application, or within such time as may be t by the Office. 37 CFR 1.52(d).
X	English
	Non-English
	☐ The attached translation includes a statement that the translation is accurate. 37 C.F.R. 1.52(d).
8. Assign	nment
	An assignment of the invention to
	☐ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.
	☐ will follow.
	an assignment is submitted with a new application, send two separate letters-one for the application of one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).
WARNING	: A newly executed "CERTIFICATE UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

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9. Certifi d Copy Certified copy(ies) of application	on(s)		
Country	Appln. No.		Filed
Country	Appln. No.		Filed
Country	Appin. No.	<u></u>	Filed
from which priority is claimed			
☐ is (are) attached.			
☐ will follow.			
NOTE: The foreign application formin declaration. 37 CFR 1.55(a) ar	_	or priority must be	referred to in the oath of
NOTE: This item is for any foreign pr U.S. application or Internationa 120 is itself entitled to priority PAGES FOR NEW APPLICATI CLAIMED.	al Application from which the from a prior foreign application	nis application clair ation, then comple	ns benefit under 35 U.S.C ete item 18 on the ADDE
10. Fee Calculation (37 C.F.R.	. 1.16)		
A. Regular application			
	CLAIMS AS FILED		
Number filed	Number Extra	Rate	Basic Fee 37 C.F.R. 1.16(a \$790.00
Total Claims (37 CFR 1.16(c)) - 20) = X	\$ 22.00	
Independent Claims (37 CFR 1.16(b)) - 3	= X	\$ 82.00	
Multiple dependent claim(s), if any (37 CFR 1.16(d))	+	\$270.00	
☐ Amendment cancellin	g extra claims is encl	losed.	
 Amendment deleting 	multiple-dependencie	s is enclosed.	
☐ Fee for extra claims i	s not being paid at th	nis time.	
NOTE: If the fees for extra claims are n prior to the expiration of the t notice of fee deficiency. 37 C	time period set for respons		-
Fili	ng Fee Calculation		\$
B. Design application (\$330.00—37 CFR 1.1	16(f))		
	ing Fee Calculation		\$
C. Plant application (\$540.00—37 CFR 1.			

Filing fee calculation

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11. Small Entity Statement(s)
Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.2 is (are) attached.
WARNING: "Status as a small entity must be specifically established in each application or patent in which the status is available and desired. Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly directly dependent upon the application or patent in which the status has been established. The refiling of an application under § 1.53 as a continuation, division, or continuation-in-part (including a continued prosecution application under § 1.53(d)), or the filing of a reissue application requires a new determination as to continued entitlement to small entity status for the continuing or reissue application. A nonprovisional application claiming benefit under 35 U.S.C. 119(e), 120, 121, 0365(c) of a prior application, or a reissue application may rely on a statement filed in the prior application or in the patent or includes reference to the statement in the prior application or in the patent or includes a copy of the statement in the prior application or in the patent or includes a copy of the statement in the prior application or in the patent and status as a small entity is still proper and desired. The payment of the small entity basic statutory filing fee will be treated as such a reference for purposes of this section." 37 C.F.R. § 1.28(a)(2).
(complete the following, if applicable)
Status as a small entity was claimed in prior application 60 / 082717, filed on April 23, 1999 , from which benefits being claimed for this application under:
35 U.S.C. L 119(e), 120, 121, 365(c),
and which status as a small entity is still proper and desired.
A copy of the statement in the prior application is included.
Filing Fee Calculation (50% of A, B or C above)
\$
NOTE: Any excess of the full fee paid will be refunded if small entitiy status is established and a refund requestare filed within 2 months of the date of timely payment of a full fee. The two-month period is no extendable under § 1.136. 37 CFR 1.28(a).
12. Request for International-Type Search (37 C.F.R. 1.104(d))
(complete, if applicable)
Please prepare an international-type search report for this application at the time

when national examination on the merits takes place.

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13. Fe	e Payr	nent Being Made at This Tim	
K	Not	Enclosed	
	₫	No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. 1.16 quently.)	(e) can be paid subse-
] Enc	losed	
		Filing fee	\$
		Recording assignment (\$40.00; 37 C.F.R. 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".)	\$
		Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached (\$130.00; 37 C.F.R. 1.47 and 1.17(i))	\$
		For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. 1.52(d) and 1.17(k))	\$
		Processing and retention fee (\$130.00; 37 C.F.R. 1.53(d) and 1.21(l))	\$
		Fee for international-type search report (\$40.00; 37 C.F.R. 1.21(e))	\$
NOTE:	to comp and 1.76 filing fee	1.21(I) establishes a fee for processing and retaining any application plete the application pursuant to 37 CFR 1.53(f) and this, as well as 8(a)(1), indicate that in order to obtain the benefit of a prior U.S. a must be paid, or the processing and retention fee of § 1.21(I) mustion under § 53(f).	the changes to 37 CFR 1.53 application, either the basic
		Total fees enclosed	\$
14. Me	ethod c	of Payment of Fees	
] Che	ck in the amount of \$	
Ε] Cha \$	irge Account No	in the amount of
		uplicate of this transmittal is attached.	
NOTE:	Fees shi 1.22(b).	ould be itemized in such a manner that it is clear for which purpos	se the fees are paid. 37 CFR
		(Application Trans	smittal [4-1]—page 8 of 11)

15. Au	th riz	zati n to Charg Additional Fees
WARNI	NG: If	no fees are to be paid on filing, the following items should not be completed.
WARNI		occurately count claims, especially multiple dependent claims, to avoid unexpected high charges, extra claim charges are authorized.
C		e Commissioner is hereby authorized to charge the following additional fees this paper and during the entire pendency of this application to Account No.
		37 C.F.R. 1.16(a), (f) or (g) (filing fees)
		37 C.F.R. 1.16(b), (c) and (d) (presentation of extra claims)
NOTE:	must o	ise additional fees for excess or multiple dependent claims not paid on filing or on later presentation only be paid or these claims cancelled by amendment prior to the expiration of the time period response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to rize the PTO to charge additional claim fees, except possibly when dealing with amendments after action.
		37 C.F.R. 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
		37 C.F.R. §§ 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a)).
		37 C.F.R. 1.17 (application processing fees)
NOTE:	or futuas incocharge constitution an extended for the constitution of the constitution	A written request may be submitted in an application that is an authorization to treat any concurrent are reply, requiring a petition for an extension of time under this paragraph for its timely submission, corporating a petition for extension of time for the appropriate length of time. An authorization to seall required fees, fees under § 1.17, or all required extension of time fees will be treated as a ructive petition for an extension of time in any concurrent or future reply requiring a petition for tension of time under this paragraph for its timely submission. Submission of the fee set forth in 7(a) will also be treated as a constructive petition for an extension of time in any concurrent replying a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. 36(a)(3).
		37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311(b))
NOTE:	of a N	an authorization to charge the issue fee to a deposit account has been filed before the mailing notice of Allowance, the issue fee will be automatically charged to the deposit account at the time iling the notice of allowance. 37 CFR 1.311(b).
NOTE:	entity fee if the	FR 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small status must be filed in the application prior to paying, or at the time of paying, the issue" From the wording of 37 CFR 1.28(b), (a) notification of change of status must be made even fee is paid as "other than a small entity" and (b) no notification is required if the change is to er small entity

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16	Instructions	20 +	Ov.	
10.	Insurctions	as t	UV	rpayment

NOTE:	a	Amounts of twenty-five dollars or less will not be returned unless specifically requested within reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).
]	Credit Account No.
[)	Refund

Reg. No. 33860

Tel. No. (617) 523-3400

Customer No.

SIGNATURE OF PRACTITIONER
Peter F. Corless

(type or print name of attorney)

Dike, Bronstein, Roberts & Cushman LLP

P.O. Address

130 Water Street Boston, MA 02109

(Application Transmittal [4-1]—page 10 of 11)

ш	incor	poration by fer finde i added pages
	pr sta th	heck the following item if the application in this transmittal claims the benefit of ior U.S. application(s) (including an international application entering the U.S. age as a continuation, divisional or C-I-P application) and complete and attach e ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF RIOR U.S. APPLICATION(S) CLAIMED)
		Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed
		Number of pages added
		Plus Added Pages for Papers Referred to in Item 4 Above
		Number of pages added
		Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application. Number of pages added
		Plus "Assignment Cover Letter Accompanying New Application"
		Number of pages added
	State	ment Where No Further Pages Added
		no further pages form a part of this Transmittal, then end this Transmittal with is page and check the following item)
	ð	This transmittal ends with this page.

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